## SEARCH REQUEST FORM

## Scientific and Technical Information Center

	umber 30 <u>8-4200</u>	Examiner #: 78254 Date: _5 Serial Number: 10/025,832 ts Format Preferred (circle): PAPER	
If more than one search is submitted, please prioritize searches in order of need.			
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.			
Title of Invention: Clip-on corner alignment device			
Inventors (please provide full names): Acnold Robert			
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	<del>·</del> ;
Earliest Priority Filing Date: 12/	19/01	<u> </u>	
*For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.			
I am looking for a device that clips onto a tool is			
alian a want pace to be acted opin a join			
considerable I am looking for a clip			
alignment device used to align the corner of appiece			
of paper with a punch tool.			
Any clip-on alignment device would be great, depotally one having two resilient arm connected at a connection point, with each arm having a guide surface.			
one baving two resilient arm conface.			
it and arm having o			
align alignment, punch			
Kaywords: clip, clip-on, guide, align, alignment, punch			
maybe craft catalogs would have something like this?			
maube craft catalogs would have some			
<b>.</b>		Thanks!	
STAFF USE ONLY	Type of Search	Vendors and cost where applicab	de la
Searcher: JEANNE HONRIGAN	NA Sequence (#)	STN	All I
Searcher Phone #:	AA Sequence (#)	Dialog	
Searcher Location:	Structure (#)	Questel/Orbit	The state
Date Searcher Picked Up: 5/7	Bibliographic	Dr. Link	
Date Completed: 57	Litigation	Lexis/Nexis	MILEY
Searcher Prep & Review Time://	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time:	Other	Other (specify)	
PTO-1590 (8-01) /0:00	•		

## STIC Database Tracking Number: 93369

TO: Thomas Druan Location: CP2-11D30

Wednesday, May 07, 2003

Case Serial Number: 10/025832

From: Jeanne Horrigan

**Location: EIC 3700** 

CP2-2C08

Phone: 305-5934

Jeanne.horrigan@uspto.gov

### Search Notes

Attached are the search results for the clip-on corner alignment device, including results of inventor and prior art searches in foreign/international patent databases and prior art searches in product and general interest non-patent literature databases. I also searched the Web using the Google search engine.

The results are organized into three sets:

- Results of inventor search in foreign/international patent databases;
- Results of prior art search in foreign/international patent databases; and
- Results of non-patent literature search.

Results appear after the database names and search strategy used for those results. I tagged item that I thought seemed most relevant, but I suggest that you review all of the results.

Also attached is a search feedback form. Completion of the form is voluntary. Your completing this form would help us improve our search services.

I hope the attached information is useful. Please feel free to contact me (phone 305-5934 or email jeanne.horrigan@uspto.gov) if you have any questions or need additional searching on this application.



```
File 348: EUROPEAN PATENTS 1978-2003/Apr W04
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
                Description
Set
        Items
                AU='ARNOLD ROBERT'[not relevant]
S1
            2
File 350: Derwent WPIX 1963-2003/UD, UM &UP=200329
File 347: JAPIO Oct 1976-2002/Dec(Updated 030402)
File 371:French Patents 1961-2002/BOPI 200209
       Items
               Description
Set
               AU='ARNOLD R'
          169
S1
               AU='ARNOLD ROBERT'
S2
           1
s3
        85592
                CLIP????
S4
                S1 AND S3
            0
           64
                AU='ROBERT A'
S5
                AU='ROBERT ARNOLD SMALLBONE' OR AU='ROBERT ARNOLD TAYLOR':-
            AU='ROBERT ARNOLD TREMMEL'
            0
                S3 AND S5:S6
S7
```

2/26,TI/1 (Item 1 from file: 371)

DIALOG(R) File 371: French Patents

(c) 2002 INPI. All rts. reserv. All rts. reserv.

000646701

Title: DISPOSITIF D'ALIMENTATION EN PRODUIT LONG DE RECOUVREMENT D'UNE INSTALLATION DE REVETEMENT INTERNE DE TUYAUTERIES

Patent and Priority Information (Country, Number, Date):

Patent:

FR 2455945 - 19801205

```
File 94:JICST-EPlus 1985-2003/Apr W4
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Mar
File 111:TGG Natl.Newspaper Index(SM) 1979-2003/May 05
File 583: Gale Group Globalbase (TM) 1986-2002/Dec 13
       6:NTIS 1964-2003/May W1
       8:Ei Compendex(R) 1970-2003/Apr W4
File
File 65:Inside Conferences 1993-2003/Apr W4
File 473: FINANCIAL TIMES ABSTRACTS 1998-2001/APR 02
File 474:New York Times Abs 1969-2003/May 06
File 475: Wall Street Journal Abs 1973-2003/May 06
                Description
        Items
                PUNCH OR PUNCHES OR PUNCHER? ? OR PUNCHING
        15361
                STAMP OR STAMPS OR STAMPER? ? OR STAMPING
S2
        22911
        2136
                EMBOSS?
S3
        20950
                CLIP OR CLIPS OR CLIPPING OR CLASP? ? OR CLASPING OR GRIP -
S4
             OR GRIPS OR GRIPPING
S5
        71767
                ALIGN?
       283616
S6
                GUIDE?
      1799050
s7
                PAPER
S8
           28
                S1:S3(10N)S4
s9
          277
                S5(3N)S6
            0
                S8(S)S9
S10
            0
                S8(S)S5
S11
S12
          147
                S4(S)S5
S13
           0
                S1:S3(S)S12
                S1:S3(S)S4
S14
           65
           0
                S9 AND S14
S15
S16
         . 82
                S1:S3 AND S4
S17
            0
                S5 AND S16
           0
                S8/2003 OR S8/2002
S18
        - 28
                S8
S19
S20
           28
                RD (unique items)
                S1:S3 AND S4 AND S5
S21
            0
           82
                S1:S3 AND S4
S22
                S22 AND S7
S23
           17
                S23 NOT S8
S24
           15
           15
                RD (unique items)
S25
          314
                CLIP? ?() (ON OR ONS)
S26
                S1:S3 AND S26
S27
            0
20/7/18
            (Item 6 from file: 8)
               8:Ei Compendex(R)
DIALOG(R)File
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.
           E.I. Monthly No: EI9011133918
02975260
  Title: Laser or punch. Which one.
  Author: Von Trotha, Lebrecht
  Corporate Source: Trumpf Lasertechnik GmbH, Ditzingen, West Ger
  Source: Modern Machine Shop v 62 n 10 Mar 1990 p 66-75
  Publication Year: 1990
  CODEN: MMASAY
                  ISSN: 0076-9991
  Language: English
  Document Type: JA; (Journal Article)
                                          Treatment: A; (Applications); G;
(General Review)
  Journal Announcement: 9011
  Abstract: Smaller job lots require methods that combine high productivity
and economy with increased flexibility. The NC turret punch press first
```

revolutionized sheet metal processing and fabrication. The laser is now making its move. Both provide the user with advantages and options.

25/7/6 (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
(c) 2002 The Gale Group. All rts. reserv.
05972664

GERMANY: NEW PUNCHES AND SAPLERS FROM NOVUS

Boss (XJC) Mar 1994 p.80-81

Language: GERMAN

Flottes Duo

On the Premiere fair in Frankfurt, Novus showed new staplers and punches as a complement to the product range, which now reaches from small gadgets for the schoolbag or the kitchen drawer to professional "heavy-weights". The article presents, among other things, the new stapler Novus B 10, which weights only 50 g, and the new punch B 200, the beginner model weighing only 160 g. The B 10 file can hold 50 Novus stapler clips, which can bind up to 8 sheets of normal 80 g paper. The B 200 punch can perforate 10 sheets or up to 1 mm of paper. The article also mentions the punch B 216, the favourably-priced office version for 1.6 mm of paper. The B 225 punch is suitable for up to 2.5 mm of paper. The new B 240 punch can perforate a paper stack of up to 4 mm. Only the professional punch B 210 can cope with a thicker stack (up to 6.3 mm).

```
9:Business & Industry(R) Jul/1994-2003/May 06
File 16: Gale Group PROMT(R) 1990-2003/May 06
File 47: Gale Group Magazine DB(TM) 1959-2003/May 05
File 80:TGG Aerospace/Def.Mkts(R) 1986-2003/May 06
File 95:TEME-Technology & Management 1989-2003/Apr W3
File 141: Readers Guide 1983-2003/Mar
File 148: Gale Group Trade & Industry DB 1976-2003/May 06
File 160: Gale Group PROMT (R) 1972-1989
File 481: DELPHES Eur Bus 95-2003/Apr W4
File 482: Newsweek 2000-2003/May 03
File 484: Periodical Abs Plustext 1986-2003/Apr W4
File 621: Gale Group New Prod. Annou. (R) 1985-2003/May 06
File 649: Gale Group Newswire ASAP (TM) 2003/May 06
File 570: Gale Group MARS(R) 1984-2003/May 06
      Items
                Description
                PUNCH OR PUNCHES OR PUNCHER? ? OR PUNCHING
       127607
                STAMP OR STAMPS OR STAMPER? ? OR STAMPING
S2
       179151
        24715
S3
                EMBOSS?
                CLIP OR CLIPS OR CLIPPING OR CLASP? ? OR CLASPING OR GRIP -
S4
       328620
             OR GRIPS OR GRIPPING
       297836
                ALIGN?
S5
      1600129
                GUIDE?
S6
      1539239
s7
                PAPER
S8
         8584
                CLIP? ?()(ON OR ONS)
       323084
S9
                S1:S3
           43
                S8(S)S9
S10
                RD (unique items)
S11
           34
S12
           3
                S11/2003 OR S11/2002
                S11 NOT S12
S13
           31
S14
        · 31
                Sort S13/ALL/PD,D
S15
           47
                S9(S)S4(S)S5:S6
S16
           47
                S15 NOT S10
           43
                RD (unique items)
S17
                S17/2003 OR S17/2002
S18
           4
          39
                S17 NOT S18
S19
                Sort S19/ALL/PD,D
S20
          39
          377
                PAPER() PUNCH???
S21
S22
          130
                ALIGNMENT()GUIDE? ?
S23
           0
                S21 AND S22
            1
                S8 AND S21
S24
               S8 AND S22
S25
            6
S26
                S24:S25
               (Item 10 from file: 47)
 14/3,K/10
DIALOG(R) File 47: Gale Group Magazine DB(TM)
(c) 2003 The Gale group. All rts. reserv.
05450598
             SUPPLIER NUMBER: 56081639
                                          (USE FORMAT 7 OR 9 FOR FULL TEXT)
Not for Kids Only. (specialty stationery stores) (Brief Article)
CLARK, CYNTHIA
Publishers Weekly, 246, 40, 24
Oct 4, 1999
DOCUMENT TYPE: Brief Article
                                  ISSN: 0000-0019
                                                        LANGUAGE: English
RECORD TYPE: Fulltext
                     LINE COUNT: 00075
WORD COUNT:
             910
        a bon jour, Zelco Industries Inc., of Mt. Vernon, N.Y, maker of the
first clip - on booklight, introduces innovative reading and desk
```

products, many created by top Italian designers. Two lightheartedly... ...moderne design with pack-rat function: two hidden compartments swivel out to hold paper clips, stamps and Post-its. A soft-grip ballpoint pen stands guard at rear, while the clock...

14/3,K/15 (Item 15 from file: 141)

DIALOG(R) File 141: Readers Guide

(c) 2003 The HW Wilson Co. All rts. reserv.

03817112 H.W. WILSON RECORD NUMBER: BRGA98067112 (USE FORMAT 7 FOR FULLTEXT)

Seeing is believing.

We (New York, N.Y.) (We) (May/June '98) p. 54-5

WORD COUNT: 513

TEXT:

... within 15'. One 9V, two AAA batteries needed. \$36.50.

LIGHT UP YOUR LIFE For **stamp** collecting, sewing ... and reading, of course, this magnifier with adjustable cord leaves your hands free. **Clip** - **on** "shadowless" light provides Plus 2x magnifier, 4x bifocal lens. Two AA batteries needed. \$19.95...

14/3,K/23 (Item 23 from file: 148)

DIALOG(R) File 148: Gale Group Trade & Industry DB

(c) 2003 The Gale Group. All rts. reserv.

07195784 SUPPLIER NUMBER: 15150680 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Hall-of-Fame drafts eight. (winners in Purchasing's second annual Cost Savers Hall-of-Fame contest)

Purchasing, v116, n1, p25(4)

Jan 13, 1994

ISSN: 0033-4448 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 1845 LINE COUNT: 00152

... help find a solution. As a result of Danneman's action, the supplier assumed the **punch** press operation, and began stacking the **clips** on a dowel rod in standard quantities. The changes, according to Danneman, "eliminated the possibility of...

20/3,K/2 (Item 2 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

08031616 Supplier Number: 66684099 (USE FORMAT 7 FOR FULLTEXT)

EXECUTIVES ARGUE THE CASE FOR FLEXO. (annual conference of the Newspaper and Publication Flexo Users Group) (Statistical Data Included)

Rosenberg, Jim

Editor & Publisher, p30

Oct 30, 2000

Language: English Record Type: Fulltext

Article Type: Statistical Data Included Document Type: Magazine/Journal; General

Word Count: 1489

... on about half of the printed pages.

Those same aqueous inks, however, along with lighter **grip** on the sheet, conjoin to turn the emerging standard of a 50-inch web to flexo's advantage. In flexo, trolleys that **guide** the web at its margins ordinarily do not track ink in their path or deeply **emboss**, even puncture, the sheet -- unlike offset's nondrying litho inks and often too-firm **grip** on the sheet. "The offset people have just handed us a big gift," said Danny...

20/3,K/34 (Item 34 from file: 148)

DIALOG(R) File 148: Gale Group Trade & Industry DB

(c) 2003 The Gale Group. All rts. reserv.

05541407 SUPPLIER NUMBER: 11594133 (USE FORMAT 7 OR 9 FOR FULL TEXT) Contracting ring gage pinpoints dimensions of hubs and grooves. (Products

for Profit)

Industrial Distribution, v80, n15, p79(1)

Nov 15, 1991

ISSN: 0019-8153 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 4173 LINE COUNT: 00315

enhances control and, in general, guarantees a higher rate of productivity per tool. The contoured **grip** conforms to hands of different sizes or shapes. A handy selector level instantly converts action... workers can repair and reactivate V-belts with the help a complete kit of belting, **clips**, a tensioning tool, and other components needed to finish the task at the job site...

...and adding thumb ridges to the handles of these manual nut drivers gives a firmer **grip** and allows more torque per turn. Selection is also made easier via color coding for...

...rates. Chip Breaker/insert combinations are broken down further with letter designations. An insert selection **guide** is available. Packaging includes additional information on selecting the right insert for the job. Carboloy...3 x and 10 x more power. NSK America, Inc. CIRCLE NO. 286 Get precision **punches** on order m any size, style, surface treatment, finish, and grade of steel. This single-sourcing producer stocks a line of standards plus specialties including precision, miniature parts for **punching** and related operations. Also available: form ground, high speed steel perforators; **punch** blanks; fractional and decimal tool and gage blanks; forged ejector pins; and core-type mold pins. Precision **Punch** Corp. CIRCLE NO. 287

#### 26/3,K/1 (Item 1 from file: 16)

DIALOG(R) File 16: Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

07838719 Supplier Number: 65475653 (USE FORMAT 7 FOR FULLTEXT)

Force Computers Announces NEBS Building Block Initiative At Embedded Systems Conference.

Business Wire, p2338

Sept 26, 2000

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 814

... is a major concern in NEBS testing, which is addressed through the use of ESD clips on all CompactPCI card alignment guides and light pipes for sensitive indicator LEDs...

#### 26/3,K/4 (Item 1 from file: 160)

DIALOG(R) File 160: Gale Group PROMT(R)

(c) 1999 The Gale Group. All rts. reserv.

01604679

Clip - on Heat Sinks Allow Easy Assembly with Semiconductor.

NEWS RELEASE December 11, 1986 p. 11

... design flexibility. Locking clips have an internal tab to lock the semiconductor permanently in place. **Alignment guides**, offered on some clips, line up the semiconductor for insertion. For applications to meet...

Searcher: Jeanne Horrigan

Serial 10/025832 May 7, 2003

```
File 635: Business Dateline(R) 1985-2003/May 06
File 636: Gale Group Newsletter DB(TM) 1987-2003/May 06
File 646:Consumer Reports 1982-2003/Apr
File 609: Bridge World Markets 2000-2001/Oct 01
File 610: Business Wire 1999-2003/May 07
File 613:PR Newswire 1999-2003/May 07
File 810: Business Wire 1986-1999/Feb 28
File 813:PR Newswire 1987-1999/Apr 30
File 20:Dialog Global Reporter 1997-2003/May 07
        Items
                Description
Set
                PUNCH OR PUNCHES OR PUNCHER? ? OR PUNCHING
       102049
S1
                STAMP OR STAMPS OR STAMPER? ? OR STAMPING
       149270
S2
         8244
                EMBOSS?
S3
       225248
                CLIP OR CLIPS OR CLIPPING OR CLASP? ? OR CLASPING OR GRIP -
             OR GRIPS OR GRIPPING
S5
       176510
                ALIGN?
       948469
                GUIDE?
S6
s7
      1021895
                PAPER
S8
         4203
                CLIP? ?() (ON OR ONS)
s9
        33041
                DS
       256663
                S1:S3
S10
           25
                S5()S6
S11
                S8(3N)S11 [duplicates]
S12
           2
S13
           16
                S10(S)S8
                S13 NOT S12
           16
S14
           15
                RD (unique items)
S15
           2
                S15/2003 OR S15/2002
S16 ·
s17
           13
                S15 NOT S16
                Sort S17/ALL/PD,D [not relevant]
S18
           13
            0
                S10(S)S4(S)S11
S19
            2
                S4(S)S11
S20
                S20 NOT S16 [duplicates]
S21
            2
         1090
                S10(S)S4
S22
                S5(S)S22 [not relevant]
S23
           1
S24
           28
                S6(S) S22
           28
                S24 NOT S14
S25
           19
                RD (unique items)
S26
           3
                S26/2003 OR S26/2002
S27
           16
                S26 NOT S27
S28
                Sort S28/ALL/PD,D [not relevant]
S29
           16
```

Searcher: Jeanne Horrigan Serial 10/025832 May 7, 2003 File 350: Derwent WPIX 1963-2003/UD, UM &UP=200329 File 347: JAPIO Oct 1976-2002/Dec(Updated 030402) File 371: French Patents 1961-2002/BOPI 200209 Description Items PUNCH OR PUNCHES OR PUNCHER? ? OR PUNCHING S1 79814 STAMP OR STAMPS OR STAMPER? ? OR STAMPING S2 44670 25304 EMBOSS? s3 CLIP OR CLIPS OR CLIPPING OR CLASP? ? OR CLASPING OR GRIP -238419 S4 OR GRIPS OR GRIPPING 318158 \$5 ALIGN? 763783 GUIDE? **S**6 463111 PAPER s7 3275 CLIP? ?()(ON OR ONS) **S8** S9 0 \$5()\$6 AND \$8 144335 S1:S3 S10 S8 AND S10 S11 33 1 S5 AND S11 **S12** 14 S8(S)S10 S13 S14 S13 NOT S12 [not relevant] 14 2170 S15 S10(S)S4 NOT S13 S16 925 S5()S6 S15 AND S16 S17 0 **S18** 3 S5 (3N) S6 AND S15 S19 61 S5(S)S15 23 S10/TI AND S19 S20 22 S20 NOT (S12 OR S14 OR S18) **S21** (S4/TI AND S19) NOT (S12 OR S14 OR S18 OR S20) 14 **S22** (Item 1 from file: 350) 12/3,K/1 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 009496196 \*\*Image available\*\* WPI Acc No: 1993-189732/199324 XRPX Acc No: N93-145826 Press tool for crimping connector strip to end of flexible belt - has locating support for U-shaped strip with guiding slots to fold ends of securing clips. Patent Assignee: GORO SA (GORO-N) Inventor: SCHICK J F; SCHICK J Number of Countries: 004 Number of Patents: 006 Patent Family: Week Date · Applicat No Kind Date Patent No Kind A1 19930616 EP 92118373 EP 546299 Α 19921028 199324 DE 4140743 A1 19930617 DE 4140743 Α 19911211 199325 . C2 DE 4140743 19931007 DE 4140743 Α 19911211 199340 19941129 US 92989807 Α 19921211 199502 US 5368214 Α EP 92118373 EP 546299 B1 19950510 Α 19921028 199523 G 19950614 DE 502150 19921028 DE 59202150 Α EP 92118373 Α 19921028 Priority Applications (No Type Date): DE 4140743 A 19911211 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes A1 G 11 F16G-003/16 EP 546299 Designated States (Regional): DE FR GB

A1

C2

DE 4140743

DE 4140743

13 F16G-003/16

11 F16G-003/16

US 5368214 10 B27F-007/19 Α B1 G 12 F16G-003/16 EP 546299 Designated States (Regional): DE FR GB F16G-003/16 Based on patent EP 546299 DE 59202150 G ... Abstract (Basic): The end of the flexible belt (2) is aligned in the press, with the open U-shaped strip(9) held between upright flanges... ...A transverse link bar (16) through the aligning flanges holds the strip connector in place. U-shaped guides (14) in the bottom die align the clip, and the stamp has an alignment shoulder (21) to ensure correct fitting of the strip... ... Abstract (Equivalent): die (3) and for fastening staples (7), which can be driven by means of the punch (6) through guide holes (8a, 8b) disposed one above another into the clips limbs (9a... ... Abstract (Equivalent): USE/ADVANTAGE - Provides secure mounting of clip on end of conveyor belt... (Item 1 from file: 350) 18/7/1 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 010294210 \*\*Image available\*\* WPI Acc No: 1995-195470/199526 Stamp unit for printing company name - has detachable print face protecting cap, and slidable skirt around periphery Patent Assignee: BROTHER KOGYO KK (BRER ) Inventor: MIKI T; SEO K Number of Countries: 009 Number of Patents: 008 Patent Family: Applicat No Kind Date Week Patent No Kind Date 199526 A1 19950531 EP 94308681 Α 19941124 EP 655343 JP 7314872 JP 94135108 19940524 199606 Α 19951205 Α 19960116 US 94337214 19941107 US 5483880 Α Α B1 19990512 EP 94308681 19941124 199923 EP 655343 Α DE 618432 19941124 199930 DE 69418432 Ε 19990617 Α EP 94308681 Α 19941124 KR 295536 В 20010917 KR 9431625 Α 19941129 200231 B2 20020624 JP 93329656 Α 19931130 200243 JP 3294928 19940524 200247 B2 20020708 JP 94135108 Α JP 3299037 Priority Applications (No Type Date): JP 94135108 A 19940524; JP 93329656 A 19931130 Cited Patents: DE 891845; EP 516399; US 3570396; US 4141292; US 4441422 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes A1 E · 31 B41K-001/32 EP 655343 Designated States (Regional): BE CH DE FR GB LI 10 B41L-013/02 JP 7314872 Α US 5483880 29 B41K-001/32 Α EP 655343 B1 E B41K-001/32 Designated States (Regional): BE CH DE FR GB LI B41K-001/32 Based on patent EP 655343 DE 69418432 E В B41K-001/54 Previous Publ. patent KR 95013739 KR 295536 B2 7 B41K-001/32 Previous Publ. patent JP 7149031 JP 3294928 B2 10 B41K-001/50 Previous Publ. patent JP 7314872 JP 3299037 Abstract (Basic): EP 655343 A The stamp unit includes a grip portion and a stamp portion. The stamp portion engages with a lower surface of the grip portion.

The stamp portion includes a base and a print face portion with a

heat sensitive stencil paper covering an ink member. The ink member is impregnated with ink. A skirt surrounds an outer peripheral side of the stamp portion, and can be moved up and down.

The skirt does not project beyond the print face portion. An elastic member urges the skirt towards one position. The grip and the skirt include guide holes. A protection cap covers the print face, and is detachable.

ADVANTAGE - Quick and easy to make. Improved print performance due to protective cover for print face. Avoids leaks.

Dwg.1/25

Abstract (Equivalent): US 5483880 A

A stamp unit comprising:

- a grip portion having first guide holes extending in a substantially horizontal direction;
- a **sta**mp portion engageable with the **grip** portion, said **stamp** portion comprising:
  - a base member,

an ink member fixed to a lower surface of said base member, and a heat sensitive stencil paper covering at least a lower surface of said ink member and comprising a print face portion;

a skirt member surrounding an outer peripheral side of said stamp portion, said skirt member having second guide holes, said skirt member being supported by at least one of said grip portion and said stamp portion so as to be movable relative to said ink member in a substantially vertical direction between a first position at which a lower end portion of said skirt member protects beyond said print face portion of said stamp portion, a second position at which said lower end portion of said skirt member does not protect beyond said print face portion, and a third position in which said first guide holes are maintained in alignment with said second guide holes such that an alignment device is receivable therethrough; and

an elastic member that elastically urges said skirt member toward said first position relative to said grip portion.

Dwg.11/25B

Derwent Class: P75

International Patent Class (Main): B41K-001/32; B41K-001/50; B41K-001/54; B41L-013/02

International Patent Class (Additional): B41K-001/56; B41L-013/18

#### 21/3,K/5 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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008416484 \*\*Image available\*\*

WPI Acc No: 1990-303485/199040

XRPX Acc No: N90-233226

Stamping device for making items from sheet or rod - has devices to remove items from working zone in aligned position, in form of grips, and chain transporter carrying them

Patent Assignee: MASLOV A N (MASL-I)

Inventor: MASLOV A N

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week SU'1548080 A 19900307 SU 4438361 A 19880513 199040 B Priority Applications (No Type Date): SU 4438361 A 19880513

(Item 7 from file: 350) 21/3,K/7 DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. \*\*Image available\*\* 007687003 WPI Acc No: 1988-320935/198845 XRPX Acc No: N88-243218 Sheet material stamping device - has carriage positioned on fixed part of device and equipped with strip gripping unit Patent Assignee: MOGIL ELEKTRODVIGAT (MOGI-R) Inventor: GUSIN B S; MOZOLEV N I; YANCHEVSKI A P Number of Countries: 001 Number of Patents: 001 Patent Family: Applicat No Kind Patent No Kind Date 19880430 SU 4102990 19860610 198845 B SU 1391774 Α Α Priority Applications (No Type Date): SU 4102990 A 19860610 Patent Details: Main IPC Filing Notes Patent No Kind Lan Pg SU 1391774 Α ... Abstract (Basic): a carriage (6) positioned on the fixed part of the device and provided with strip gripping unit (7) and placing an item with an opening in the same location of the... ...on the carriage (6) with the markings on the top. The cutting out contour is aligned with the contour of the frame (4). The blank is fixed and the carriage with the blank is moved into the stamping position. USE/ADVANTAGE - Mainly for marking purposes. Widened technological capabilities. Bul.16/30.4.88... 21/3,K/11 (Item 11 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 003353380 WPI Acc No: 1982-L1402E/198234 Press for punching holes in square hollow sections - uses mandrel matrix over which work is threaded in path of punch and punch -action guides Patent Assignee: MULARD M (MULA-I) Inventor: MULARD M Number of Countries: 001 Number of Patents: 001 Patent Family: Applicat No Patent-No-Kind Date Kind Date Week FR 2497699 ) A 19820716 198234 B Priority Applications (No Type Date): FR 811178 A 19810115 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes FR 2497699 Α 17 ... Abstract (Basic): The press punches holes through square hollow sections (1). Programmed handlers grip and feed the Work over a mandrel (30) on the free end of a cantilevered... ...work. A jack (45) actuated drop beam (36) locates tapered guides (34,35) with the punch (37) and its jack (45), the former leading the punch to enter aligned holes in the work and the mandrel. The punch pierces the work and passes through a mandrel hole, the punch and the

21/3,K/18 (Item 18 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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quides being set at the required hole interval...

001275868

WPI Acc No: 1975-F9776W/197523

Hand printing stamp with removable raised printing symbols - has the symbol elements attached to the base of the stamp by magnetic attraction

Patent Assignee: DIGLIN J T (DIGL-I)

Number of Countries: 003 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week 19750528 197523 B DE 2455533 Α 19751111 197606 ZA 7407410 А 197740 19771005 GB 1488115 Α

Priority Applications (No Type Date): GB 7354857 A 19731127

- ... Abstract (Basic): In one design, the flat base surface of the **stamp** base is covered by a thin steel sheet to which the magnetised layers on the...
- ...printing element are attracted. In a second design the magnetised layer is applied to the **stamp** base and the individual printing elements have a steel sheet base. The magnetised layer comprises...
- ...parts and aluminium, nickel and cobalt in a phenol resin. The mounting plate of the stamp is rectangular and made of a rigid non-metallic material in which two holes are formed for screws which attach the plate to the hand grip. The plate has a short rim encircling it to facilitate insertion and alignment of the relatively small printing elements which are provided with pictorial symbols of animals for...

#### 21/3,K/21 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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03976783 \*\*Image available\*\*

STAMP POSITIONING APPARATUS

PUB. NO.: 04-341883 [JP 4341883 A] PUBLISHED: November 27, 1992 (19921127)

INVENTOR(s): FUWA TETSUJI

APPLICANT(s): BROTHER IND LTD [000526] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 03-114661 [JP 91114661] FILED: May 20, 1991 (19910520)

JOURNAL: Section: M, Section No. 1397, Vol. 17, No. 196, Pg. 118,

April 16, 1993 (19930416)

#### ABSTRACT

- ...CONSTITUTION: A **stamp** main body 1 is constituted so that a pressure absorbing member 5 composed of sponge...
- ...bonded to the front of a rectangular parallelepiped sealing surface base stand 4 having a **grip** 3 fixed to the center of the rear thereof and a sealing surface 6 composed...
- ... into contact with the right part of the sealing surface machine stand 4 of the stamp main body 1 to be fixed thereto by a clamping screw. At the time of use, ink is applied to the sealing surface from a stamp stand (not shown in a drawing) in such a state that the positioning frame 2 is opened. Next, the opening part 10 of the positioning frame 2 is aligned with a position where the sealing of a surface 30 to be sealed is desired and, thereafter, the stamp main body 1 is revolved in a Y-direction by holding the grip 3 in such a state that the positioning frame 2 is pressed to apply sealing.

21/3,K/22 (Item 2 from file: 347)

DIALOG(R) File 347: JAPIO

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02943737 \*\*Image available\*\*

PUNCH PRESS EQUIPPED WITH AUTOMATIC DIE CHANGING DEVICE

PUB. NO.: 01-241337 [JP 1241337 A] PUBLISHED: September 26, 1989 (19890926)

INVENTOR(s): ARIMA NOBUTAKA

APPLICANT(s): AMADA CO LTD [330108] (A Japanese Company or Corporation), JP

(Japan)

APPL. NO.: 63-065847 [JP 8865847] FILED: March 22, 1988 (19880322)

JOURNAL: Section: M, Section No. 910, Vol. 13, No. 577, Pg. 16,

December 20, 1989 (19891220) ABSTRACT

...CONSTITUTION: The position H2 of a punch 15 becomes undefined by the dispersion of the upper dead center of a punch holder 17 in case of changing the dies of a punch 15 and die 19. However, the height of the arm base for punch is adjustable at its position by the vertical movement of a piston rod 111, so the height of the base 87 is adjusted to align the position of the punch 15 to the height of H2. The base 87 thus creeps into in the state of as ascending by the rod 111, keeping the positional relation H4 of the grip arm 79 for punch and the groove of the punch 15 constant and holding the punch 15. The rod 111 is then descended, the base 87 holds the punch 15, the arm base 95 for die holds stripper 65 and die 19, and the replacement of a die is completed by being placed out of the punch holder 17.

22/3,K/8 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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004584360

WPI Acc No: 1986-087704/198613

XRPX Acc No: N86-064076

Terminal bridging clip with centering tab - has stamped or cut-out window in metal U-shaped clip with centrally aligned on clip in window

Patent Assignee: SIEMON CO (SIEM-N)

Inventor: THOMAS S M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 4575168 A 19860311 US 85726119 A 19850423 198613 B

Priority Applications (No Type Date): US 83534308 A 19830921; US 85726119 A

19850423
Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 4575168. A 5

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File 348: EUROPEAN PATENTS 1978-2003/Apr W04
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
      . Items
                Description
                PUNCH OR PUNCHES OR PUNCHER? ? OR PUNCHING
S1
        26417
                STAMP OR STAMPS OR STAMPER? ? OR STAMPING
S2
        25561
        15967
S3
S4
       106948
                CLIP OR CLIPS OR CLIPPING OR CLASP? ? OR CLASPING OR GRIP -
             OR GRIPS OR GRIPPING
S5
       251733 ALIGN?
                GUIDE?
S6
       258697
       164948
                PAPER
s7
         2348
                CLIP? ?() (ON OR ONS)
S8
s9
          976
                S5()S6
S10
            0
                S8(10N)S9
            0
S11
               S8(S)S9
        62531
S12
                S1:S3
         1634
                S12(S)S4
S13
                S13(S)S9
S14
            0
          166
                S13(S)S5
S15
                S12/TI OR S4/TI
S16
         6205
S17
           27
                S15 AND S16
              (Item 3 from file: 348)
 17/3,K/3
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
01138895
 Punching apparatus for stamping and method for producing the same
Stanzvorrichtung und Verfahren zu ihrer Herstellung
Dispositif de poinconnage et procede de realisation d'un tel dispositif
PATENT ASSIGNEE:
  NGK INSULATORS, LTD., (302188), 2-56 Suda-cho, Mizuho-ku, Nagoya-City,
    Aichi Prefecture 467-8530, (JP), (Proprietor designated states: all)
INVENTOR:
  Tsuji, Hiroyuki, 1508-1, Hara 4 chome, Tenpaku-ku, Nagoya-city,
    Aichi-pref. 468-0015, (JP)
  Kitamura, Kazumasa, 30-40, Aza-Kudarimatsu, Kawadakata, Hagiwara-cho,
    Ichinomiya-city, Aichi-pref. 491-0366, (JP)
  Noritake, Motoo, 11-1-109, Otowa 3 chome, Ichinomiya-city, Aichi-pref.
    491-0045, (JP)
  Matsubayashi, Satoshi, 15-12, Chiyo 3-chome, Yahatanishi-ku,
    Kitakyusyu-shi, Fukuoka-pref. 807-1112, (JP)
  Kabe, Shusaku, 10-26-306, Komine 3 chome, Yahatanishi-ku, Kitakyusyu-shi,
    Fukuoka-pref. 806-0081, (JP)
LEGAL REPRESENTATIVE:
  Paget, Hugh Charles Edward et al (34621), MEWBURN ELLIS York House 23
    Kingsway, London WC2B 6HP, (GB)
PATENT (CC, No, Kind, Date): EP 993885 Al 000419 (Basic)
                              EP 993885 B1 021127
APPLICATION (CC, No, Date):
                              EP 99307490 990922;
PRIORITY (CC, No, Date): JP 98271329 980925
DESIGNATED STATES: DE; FR; GB; IT
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: B21D-028/34; B26F-001/14
ABSTRACT WORD COUNT: 171
NOTE: Figure number on first page: 4
LANGUAGE (Publication, Procedural, Application): English; English
```

Searcher: Jeanne Horrigan Serial 10/025832<sup>-</sup> May 7, 2003

#### FULLTEXT AVAILABILITY:

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Update
                                      Word Count
Available Text Language
                (English)
                            200016
                                         689
      CLAIMS A
      CLAIMS B
                (English) 200248
                                         732
                                        .708
      CLAIMS B
                 (German)
                            200248
                            200248
                                        . 797
      CLAIMS B
                 (French)
                            200016
                                       6184
                 (English)
      SPEC A
                                       5986
                            200248
      SPEC B
                 (English)
Total word count - document A
                                       6873
                                       8223
Total word count - document B
                                      15096
Total word count - documents A + B
```

... SPECIFICATION the second holding members 116a, 116b. Thus, the stamping punch 92 is produced.

punch 92 is produced as described above, the When the stamping punch members 96 can be highly accurately secured to the punch holder 86, for example, even in the case of a minute punch in which the punch member 96 has a diameter of not more than 0.3 mm. The plurality of punch members 96 are aligned on one grip member 94. Therefore, it is possible to arbitrarily select the number of stamping punches 92 necessary for one stamping punching apparatus.

Subsequently, as shown in FIG. 4, the stamping punch 92 is inserted into the...

... SPECIFICATION the second holding members 116a, 116b. Thus, the stamping punch 92 is produced.

punch 92 is produced as described above, the When the stamping punch members 96 can be highly accurately secured to the punch holder 86, for example, even in the case of a minute punch in which the punch member 96 has a diameter of not more than 0.3 mm. The plurality of punch members 96 are aligned on one grip member 94. Therefore, it is possible to arbitrarily select the number of .stamping punches 92 necessary for one stamping - punching apparatus.

Subsequently, as shown in FIG. 4, the stamping punch 92 is inserted into the...

#### (Item 4 from file: 348) 17/3,K/4

DIALOG(R) File 348: EUROPEAN PATENTS

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01121450

#### Punch guide assembly

### Stanzfuhrungsanordnung

### Ensemble guide de poincon

PATENT ASSIGNEE:

Mate Precision Tooling Inc., (2003982), 6400 Industry Avenue, Ramsey, Minnesota 55303, (US), (Applicant designated States: all) INVENTOR:

Schneider, Joseph Charles, 14661 Junite Street N.W., Ramsey, Minnesota 55303, (US)

Berry, David A., 6965 Hickory Circle, Fridley, Minnesota 55432, (US) LEGAL REPRESENTATIVE:

Jochem, Bernd, Dipl.-Wirtsch.-Ing. (6067), Patentanwalte Beyer & Jochem, Postfach 18 02 04, 60083 Frankfurt am Main, (DE)

PATENT (CC, No, Kind, Date): EP 980724 A2 000223 (Basic) EP 980724 A3 021211

EP 99115992 990816;

APPLICATION (CC, No, Date):

PRIORITY (CC, No, Date): US 135358 980817

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI INTERNATIONAL PATENT CLASS: B21D-028/34; B21D-045/00

ABSTRACT WORD COUNT: 67

NOTE: Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count
CLAIMS A (English) 200008 383
SPEC A (English) 200008 1314
Total word count - document A 1697
Total word count - document B 0
Total word count - documents A + B 1697

...SPECIFICATION longitudinal slots 13 inside the punch guide 2.

As shown in Figures 5 and 6, punch guide 2 includes openings 15 for receiving respective side arms 8 of the retaining clip 7. These openings 15 are aligned with groove 10 when the stripper plate 6 is fully inserted into the punch guide 2. Punch guide 2 may include slight indentations 23 in the exterior wall near opening 16 which allow retaining clip 7 to be more easily grasped when removed from the punch guide. Punch guide 2 may also include an opening 16 for receiving protrusion 17 on the retaining clip. Protrusion 17, when positioned in opening 16, helps to prevent the retaining clip 7 from rotating relative to the punch guide 2 and stripper plate 6. Thus, when retaining clip 7 is inserted into punch guide 2 the edge 19 of protrusion 17 lies flat against the groove 10 as...

- ...CLAIMS inserted into said opening for retaining said stripper plate in an operative position.
  - 3. The punch guide assembly according to claim 2 wherein said stripper plate includes at least one groove in an exterior sidewall thereof such that said groove is aligned with said opening when said stripper plate is operatively inserted into said punch guide, said two side arms of said retaining clip engaging said groove when inserted into said opening.
  - 4. The punch guide assembly according to claim 3 wherein said punch guide includes at least one groove in an interior wall thereof, said groove in said punch guide being aligned with said groove in said stripper plate when said stripper plate is operatively inserted into said punch guide, said side arms of said retaining clip including protrusions extending into said groove in said punch guide when said retaining clip is inserted into said opening.
  - 5. The punch guide assembly according to claim 3 wherein...

17/3,K/5 (Item 5 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv. 01006439

01000433 61-44-4 -14- -

Slotted clip and method

Geschlitzte Halteklammer und Verfahren

Clip avec fentes et procede

PATENT ASSIGNEE:

Stanley Fastening Systems, L.P., (2391991), 7707 North Austin Avenue, Skokie, Illinois 60077-2688, (US), (Proprietor designated states: all) INVENTOR:

Room, David, 5232 George Street, Skokie, Illinois 60077, (US) Graszer, Matthew, 933 East Morris Drive, Palatine, Illinois 60067, (US)

Lackler, Paul, 576 Emroy Avenue, Elmhurst, Illinois 60126, (US) LEGAL REPRESENTATIVE:

Schmidt, Christian, Dipl.-Phys. et al (76643), Manitz, Finsterwald & Partner GbR Postfach 31 02 20, 80102 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 907033 A2 990407 (Basic)

EP 907033 A3 000419

EP 907033 B1 021218

APPLICATION (CC, No, Date): EP 98118670 981002;

PRIORITY (CC, No, Date): US 942533 971002; US 39079 980310

DESIGNATED STATES: DE; ES; FR; GB; IE; IT; PT

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: F16B-015/08; B21D-053/36; B25C-005/16

ABSTRACT WORD COUNT: 291

NOTE: Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; English; FULLTEXT AVAILABILITY:

Update Word Count Available Text Language 199914 1900 CLAIMS A (English) (English) 2012 CLAIMS B 200251 CLAIMS B (German) 200251 2025 CLAIMS B (French) 200251 2351 (English) 199914 10563 SPEC A 200251 10683 SPEC B (English) Total word count - document A 12465 Total word count - document B 17071 Total word count -, documents A + B 29536

...SPECIFICATION 86 and the die cavity sides 180 and 182.

The very tight dimensions between the punch portion 82 and projections 176 and 178 make it very difficult for slugs 88 to be pulled out from the cavities 160 and 162 with the punches 78. Any such pull back of the slugs 88 requires that they be properly aligned between the cavity projections 176 and 178, which is very unlikely given the larger clearances, and thus room for slug shifting between the punch position 82 and cavity sides 180 and 182. As is apparent, the formation of projections 58 and 60 in the clip slots 16 facilitates improved holding of the cord 14 therein as well as providing manufacturing...

...cavity lower portion 202 to the bottom of the mounting block 198.

After the slot punching station 40, sections of the punched blank strip 64 are successively fed to the blank cutting and clip forming station 44 where the slotted U-shaped clip bodies 18 are formed which art then fed to the cord insertion station 42. One...

...the cords 14 back under a cord pressing mechanism 212 and under which the individual clip bodies 18 are run with their respective slots 16 in linear alignment with each other.

The cord pressing mechanism 212 includes a lower wedge block 214, as... ... SPECIFICATION 86 and the die cavity sides 180 and 182.

The very tight dimensions between the **punch** portion 82 and projections 176 and 178 make it very difficult for slugs 88 to be pulled out from the cavities 160 and 162 with the **punches** 78. Any such pull back of the slugs 88 requires that they be properly **aligned** between the cavity projections 176 and 178, which is very unlikely given the larger clearances, and thus room for slug shifting between the **punch** portion 82 and cavity sides 180 and 182. As is apparent, the formation of projections 58 and 60 in the **clip** slots 16 facilitates improved holding of the cord 14 therein as well as providing manufacturing...

...cavity lower portion 202 to the bottom of the mounting block 198.

After the slot **punching** station 40, sections of the punched blank strip 46 are successively fed to the blank cutting and **clip** forming station 44 where the slotted U-shaped **clip** bodies 18 are formed which are then fed to the cord insertion station 42. One...

...the cords 14 back under a cord pressing mechanism 212 and under which the individual clip bodies 18 are run with their respective slots 16 in linear alignment with each other.

The cord pressing mechanism 212 includes a lower wedge block 214, as...

#### 17/3,K/6 (Item 6 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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00985590

A gripper element for a punch or a die of a punching machine Greiferglied fur eine Stanze oder eine Matrize einer Stanzvorrichtung Element de prehension pour un poincon ou une matrice d'une machine a poinconner

PATENT ASSIGNEE:

RAINER S.r.l., (564130), Via Ottavio Serra, 3, I-40012 Calderara di Reno (Bologna), (IT), (Applicant designated States: all)

INVENTOR:

Perazzolo, Eugenio, Via Veronese, 15, 45100 Rovigo, (IT)

LEGAL REPRESENTATIVE:

Cerbaro, Elena, Dr. et al (53281), STUDIO TORTA S.r.l., Via Viotti, 9, 10121 Torino, (IT)

PATENT (CC, No, Kind, Date): EP 891823 A2 990120 (Basic)

EP 891823 A3 990929

APPLICATION (CC, No, Date): EP 98113196 980715;

PRIORITY (CC, No, Date): IT 97BO429 970716

DESIGNATED STATES: DE; ES; FI; FR; GB; IT

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: B21D-028/12

ABSTRACT WORD COUNT: 149

NOTE: Figure number on first page: 1

LANGUAGE (Publication, Procedural, Application): English; English; Italian FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) 9903 816 SPEC A (English) 9903 2677

Total word count - document A 3493
Total word count - document B 0

Total word count - documents A + B 3493

...SPECIFICATION 128 and, on the other, a rod 129 for the associated piston.

In order to **grip** a **punch** 8 or a die 9, the gripper element 53, 54 is now brought into **alignment** with the seat 22, 29 of the turrets 6 and 7, and the seat 36...

...two orthogonal directions. The crosspiece 119 can now be raised along the axis of the **punch** 8 and the die 9 by means of the cylinder 69, 71 (see Figure 1 also) in order to remove the **punch** 8 or the die 9 from the respective seat.

In order to insert the punch...

#### 17/3,K/8 (Item 8 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

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#### 00776147

Stamp ink and stamp ink impregnation pad for stencil printing Stempelfarbe und Stempelkissen fur den Schablonendruck Encre pour tampons et coussin d'encre pour impression par stencil PATENT ASSIGNEE:

BROTHER KOGYO KABUSHIKI KAISHA, (431486), 15-1, Naeshiro-cho, Mizuho-ku, Nagoya-shi, Aichi-ken, (JP), (Proprietor designated states: all) INVENTOR:

Taira, Hiroshi, c/o Brother Kogyo K.K., No.15-1, Naeshiro-cho, Mizuho-ku, Nagoya-shi, Aichi-ken, (JP)

Yamamoto, Minoru, c/o Brother Kogyo K.K., NO.15-1, Naeshiro-cho, Mizuho-ku, Nagoya-shi, Aichi-ken, (JP)

Takami, Hiroshi, c/o Brother Kogyo K.K., No. 15-1, Naeshiro-cho, Mizuho-ku, Nagoya-shi, Aichi-ken, (JP)

Yuasa, Takahiro, c/o Toyo Ink Manufact. Co., Ltd, No. 3-13, Kyobashi 2 chome, Chuo-ku, Tokyo, (JP)

Hasegaea, Hideki c/o Toyo Ink Manufact. Co., Ltd, No. 3-13, Kyobashi 2-chome, Chuo-kum, Tokyo, (JP)

#### LEGAL REPRESENTATIVE:

Woods, Geoffrey Corlett (48721), J.A. KEMP & CO. Gray's Inn 14 South Square, London WC1R 5JJ, (GB)

PATENT (CC, No, Kind, Date): EP 725116 A2 960807 (Basic)

EP 725116 A3 970507 EP 725116 B1 030108

APPLICATION (CC, No, Date): EP 96300686 960131;

PRIORITY (CC, No, Date): JP 9534379 950131

DESIGNATED STATES: CH; DE; FR; GB; LI

INTERNATIONAL PATENT CLASS: CO9D-011/02; B41K-001/54

ABSTRACT WORD COUNT: 84

NOTE: Figure number on first page: NONE

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Word Count Update 788 CLAIMS A (English) EPAB96 704 CLAIMS B (English) 200302 200302 624 CLAIMS B (German) 200302 787 CLAIMS B (French) 4090 (English) EPAB96 SPEC A SPEC B (English) 200302 3674 4879 Total word count - document A Total word count - document B 5789 Total word count - documents A + B 10668

- ...SPECIFICATION a thermal printer. The thermal head is provided with, for example, ninety-six heating elements **aligned** in a row. The thermal head is mounted on a carriage. The control unit selectively...
- ...the thermal head along and in contact with the print face portion 4 of the stamp unit 1. Accordingly, the inputted character array is perforated on the stencil paper 6 of the stamp unit 1. By holding the grip portion 2 in the hand and pressing the stamp unit 1 on a paper or other printing surface, the pad 5 is compressed and stamp ink seeps out through the perforated portion of the stencil paper 6, making a print...
- ...SPECIFICATION a thermal printer. The thermal head is provided with, for example, ninety-six heating elements aligned in a row. The thermal head is mounted on a carriage. The control unit selectively...
- ...the thermal head along and in contact with the print face portion 4 of

the stamp unit 1. Accordingly, the inputted character array is perforated on the stencil paper 6 of the stamp unit 1. By holding the grip portion 2 in the hand and pressing the stamp unit 1 on a paper or other printing surface, the pad 5 is compressed and stamp ink seeps out through the perforated portion of the stencil paper 6, making a print...

(Item 9 from file: 348) 17/3,K/9 DIALOG(R) File 348: EUROPEAN PATENTS (c) 2003 European Patent Office. All rts. reserv. 00747345 Punch tool with interchangeable die Stanzwerkzeug mit auswechselbarem Werkzeug Outil de poinconnage avec outil interchangeable PATENT ASSIGNEE: FISKARS INC., (1670651), 636 Science Drive, Madison, Wisconsin 53711, (US), (applicant designated states: BE; DE; ES; FR; GB; IT; LU; NL) Quinn, Charles, 999 Allison Street, Sun Prairie, WI 53590, (US) Schofield, Robert T., 2319 Chalet Gardens Road 210, Madison, WI 53711, (US) LEGAL REPRESENTATIVE: UEXKULL & STOLBERG (100011), Patentanwalte Beselerstrasse 4, D-22607 Hamburg, (DE) PATENT (CC, No, Kind, Date): EP 704284 Al 960403 (Basic) APPLICATION (CC, No, Date): EP 95250230 950922; PRIORITY (CC, No, Date): US 314876 940929 DESIGNATED STATES: BE; DE; ES; FR; GB; IT; LU; NL INTERNATIONAL PATENT CLASS: B26F-001/32; ABSTRACT WORD COUNT: 169 LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY: Update Word Count Available Text Language CLAIMS A (English) EPAB96 418 SPEC A (English) EPAB96 2493 2911 Total word count - document A Total word count - document B n Total word count - documents A + B 2911 ...SPECIFICATION therein. A lower surface 58, defining one side of slot 56, is disposed for general alignment with flat top surface 32 of base 14 when die portion 16 is inserted into... ...along flat top surface 32 and into slot 56 along lower surface 58 prior to punching. Main body 54 also includes a shearing edge 60 (see Figure 6) having a predetermined... ...accidental rotation of die portion 16 prior to intended exertion of sufficient rotational force. A gripping member 66 extends downwardly from main body 54 and provides an area for a user to grip and rotate

17/3,K/10 (Item 10 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
00630353
RESILIENT CLIP ASSEMBLY
ELASTISCHE KLAMMERANORDNUNG
ENSEMBLE A AGRAFES ELASTIQUES
PATENT ASSIGNEE:

A guide 68 extends upwardly from main body 54 above...

die portion 16.

AYRES, Donald B., (1806330), 8501 Laramie, Stokie, IL 60077, (US), (applicant designated states: BE; DE; ES; FR; GB; IT; NL; SE) INVENTOR: AYRES, Donald B., 8501 Laramie, Stokie, IL 60077, (US) LEGAL REPRESENTATIVE: Merten, Fritz (8333), Patentanwalt Tristanstrasse 5, 90461 Nurnberg, (DE) PATENT (CC, No, Kind, Date): EP 668837 Al 950830 (Basic) EP 668837 A1 951213 EP 668837 B1 970226 WO 9411273 940526 EP 94901324 931108; WO 93US10751 931108 APPLICATION (CC, No, Date): PRIORITY (CC, No, Date): US 972582 921106 DESIGNATED STATES: BE; DE; ES; FR; GB; IT; NL; SE INTERNATIONAL PATENT CLASS: B65D-085/24; NOTE: No A-document published by EPO LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY: Available Text Language Word Count Update 847 CLAIMS B EPAB97 (English) 870 CLAIMS B (German) EPAB97 CLAIMS B (French) EPAB97 1036 SPEC B (English) EPAB97 2493 Total word count - document A Λ Total word count - document B 5246 Total word count - documents A + B 5246 ...CLAIMS a type, style or size of clip. 12. The method of claim 7 characterized by punching clip blanks (10) from a sheet of metal with each blank (10) having two spaced apart... ...the area which will be formed into a bight portion (18) of a U-shaped clip; placing a plurality of the U-shaped clips (12) in a line or row with the openings (14,16) on one side of the clip (12) aligned with adjacent openings in the adjacent clips to form a first elongate trough (28) and a second elongate trough (29)... (Item 11 from file: 348) 17/3,K/11 DIALOG(R) File 348: EUROPEAN PATENTS (c) 2003 European Patent Office. All rts. reserv. 00538021 Punch assembly Stanzwerkzeug Dispositif de poinconnage PATENT ASSIGNEE: WILSON TOOL INTERNATIONAL, INC., (1481730), 12912 Farnham Avenue, White Bear Lake, MN 55110, (US), (applicant designated states: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; MC; NL; PT; SE) INVENTOR: Wilson, Kenneth John, 102 Dellwood Avenue, White Bear Lake, MN 55110, (US) Robinson, Verlon, 17138 Verdin Street N.W., Anoka, MN 55304, (US) LEGAL REPRESENTATIVE: Jones, Alan John (32391), CARPMAELS & RANSFORD 43 Bloomsbury Square, London, WC1A 2RA, (GB) PATENT (CC, No, Kind, Date): EP 532147 A1 930317 (Basic) EP 532147 B1 EP 92302310 920318; APPLICATION (CC, No, Date): PRIORITY (CC, No, Date): US 743689 910812 DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; MC; NL;

PT; SE

INTERNATIONAL PATENT CLASS: B21D-028/34;

ABSTRACT WORD COUNT: 157

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Update Word Count Available Text Language CLAIMS B (English) EPAB96 4179 (German) EPAB96 956 CLAIMS B EPAB96 1061 CLAIMS B (French) (English) EPAB96 3153 SPEC B 0 Total word count - document A 9349 Total word count - document B 9349 Total word count - documents A + B

...SPECIFICATION turning the threaded portions of the assembly with respect to each other.

In practice, the punch assembly is used to punch items having a desired shape from a larger workpiece in a manner well known in the art. tip has worn and become dull due to repeatedly After the punch striking a workpiece, the punch assembly is removed from its turret or machine for sharpening. The punch assembly is disassembled by axially guide (40) away from the shaft of the **punch** body sliding the punch (20), as explained in detail above. With the punch guide removed, the punch tip (22) can then be sharpened. After sharpening, the length of the punch is shortened by whatever length was ground off. To compensate for this lost length, the punch holder (10) and punch body (20) are axially rotated in opposite directions. The rotating process causes the cam pin (39) of the wire clip to exit the detent (32) and slide along the groove until it enters the next detent. The motion of the clip entering a detent produces a "click" sound which alerts the user that the clip has entered a detent. As the thread diameter and pitch, as well as the location...

...number of grooves, will all be known before the assembly is used, the length the punch is increased by rotating the two threaded members of the punch will be predetermined. Thus, the user can adjust the length of the punch as needed simply by counting the number of "clicks". This process is repeated until the punch reaches the desired length. The punch assembly will be aligned and ready for use when the aperture is aligned with a detent. The punch assembly is then reassembled by sliding the guide back onto the shaft of the punch body and the punch assembly can be employed once again (Fig. 3).

While a preferred embodiment of the present...

...CLAIMS turning the threaded portions of the assembly with respect to each other.

In practice, the punch assembly is used to punch items having a desired shape from a larger workpiece in a manner well known in the art. After the punch tip has worn and become dull due to repeatedly striking a workpiece, the punch assembly is removed from its turret or machine for sharpening. The punch assembly is disassembled by axially sliding the punch guide (40) away from the shaft of the punch body (20), as explained in detail above. With the punch guide removed, the punch tip (22) can then be sharpened. After sharpening, the length of the punch is shortened by whatever length was ground off. To compensate for this lost length, the punch holder (10) and punch body (20) are axially rotated in opposite directions. The rotating process causes the cam pin (39) of the wire clip to exit the detent (32) and slide

along the groove until it enters the next detent. The motion of the clip entering a detent produces a "click" sound which alerts the user that the clip has entered a detent. As the thread diameter and pitch, as well as the location...

- ...number of grooves, will all be known before the assembly is used, the length the punch is increased by rotating the two threaded members of the punch will be predetermined. Thus, the user can adjust the length of the punch as needed simply by counting the number of "clicks". This process is repeated until the punch reaches the desired length. The punch assembly will be aligned and ready for use when the aperture is aligned with a detent. The punch assembly is then reassembled by sliding the guide back onto the shaft of the punch body and the punch assembly can be employed once again (Fig. 3).
  - While a preferred embodiment of the present...to the male threaded end (24) with respect to the female end (14).
  - 10. A punch assembly for use in a punch press, the assembly including a punch (5) comprising a pair of elongated rods (10,20), the first of which has an...
- ...the threaded male end (24) of the first rod such that the length of the punch (5) formed by the two rods threaded together may be altered by rotating one rod with respect to the other, one of the rods having at its other end a punch tip (22), the punch including means for releasably locking the rods together against rotation of one with respect to...
- ...through said circumferential wall, and a recess (32) formed in the threaded male end and alignable during rotation thereof with the aperture and the female rod end, a locking pin (39...
- ...for resiliently retaining the locking pin in said aperture comprising a generally "C" shaped wire **clip** (30) bearing said pin at one end, said **clip** being of springy metal and extending more than half way around the circumference of the...
- ...than the outer diameter of the threaded rod end adjacent to the groove, whereby said clip (30), with the tip (39) received in said aperture, snaps into said groove (31), the assembly including stripper means to strip a metal workpiece away from the punch tip during a return stroke of the punch tip in a punching operation, the stripper means comprising a tubular sheath within which is received the rod (20) bearing the punch tip (22), the stripper means including a stripper plate at its end having an orifice through where the punch tip protrudes in a punching operation, wherein adjustment of the length of the punch (5) by rotating one of the punch rods with respect to the other (10,20) adjusts the distance by which the punch tip (22) protrudes from the punch plate in a punching operation. ...

17/3,K/14 (Item 1 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00951797 \*\*Image available\*\*

METHOD OF MAKING A HAND STAMP, A HAND STAMP APPARATUS AND A STORAGE DEVICE FOR STORING IMPRINTING ELEMENTS

PROCEDE DE FABRICATION D'UN TAMPON MANUEL, APPAREIL A TAMPONS MANUELS ET DISPOSITIF DE STOCKAGE DESTINE A STOCKER DES ELEMENTS D'IMPRESSION Patent Applicant/Inventor:

LOOKHOLDER Dale, Santa Clarita, CA, US, US (Residence), US (Nationality)

CASTON Christopher B, Glendale, CA, US, US (Residence), US (Nationality) SERRANO Joaquin G, Los Angeles, CA, US, US (Residence), US (Nationality) LOOKHOLDER Theodore, Los Angeles, CA, US, US (Residence), US (Nationality)

Legal Representative:

CRUM & ROTH (agent), 53 West Jackson Boulevard, Chicago, IL 60604-3606, US, Patent and Priority Information (Country, Number, Date):

Patent:

WO 200285629 A1 20021031 (WO 0285629)

Application:

WO 2002US10472 20020401 (PCT/WO US0210472)

Priority Application: US 2001823485 20010330

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 10957

Fulltext Availability:

Claims

Claim

... 8 A hand stamp apparatus for producing an image on a surface comprising:

4.3

- (a) a mounting blocking having a smooth surface;
- (b) a first stamp element removably affixed to said smooth surface for producing a first image on a selected portion of the surface, said stamp element being formed of a viscoelastic photopolymer; and having a multiplicity of small gripping protuberances for releasably gripping said smooth surface; and
- (c) a second substantially transparent **stamp** element removably affixed to said mounting block for **alignment** with said first image for producing a second image proximate said first image on a selected portion of the surface, said second **stamp** element being formed of a viscoelastic photopolymer...

17/3,K/16 (Item 3 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00780949 \*\*Image available\*\*

THIN SHEET PUNCHING DEVICE

#### DISPOSITIF DE POINCONNAGE D'UNE FEUILLE MINCE

Patent Applicant/Assignee:

MATSUSHITA ELECTRIC INDUSTRIAL CO LTD, 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, JP, JP (Residence), JP (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

DOKYU Tensaburo, Matsushita Electric Industrial Co., Ltd., 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, JP, JP (Residence), JP (Nationality), (Designated only for: US)

MAJIMA Mikio, Matsushita Electric Industrial Co., Ltd., 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, JP, JP (Residence), JP (Nationality), (Designated only for: US)

NAKATSUKA Saburo, Matsushita Electric Industrial Co., Ltd., 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, JP, JP (Residence), JP (Nationality), (Designated only for: US) KUSE Takanori, 172-24, Takamiya, Neyagawa-shi, Osaka 572-0806, JP, JP (Residence), JP (Nationality), (Designated only for: US) SHIZUNO Akio, 598, Egashira-cho, Omihachiman-shi, Shiga 532-0061, JP, JP (Residence), JP (Nationality), (Designated only for: US) Legal Representative: ISHIHARA Masaru (agent), 5th Floor, Tatsuno Nishi-tenma Bldg., 1-6, Nishi-tenma 3-chome, Kita-ku, Osaka-shi, Osaka 530-0047, JP, Patent and Priority Information (Country, Number, Date): WO 200114079 A1 20010301 (WO 0114079) Patent: WO 2000JP5428 20000811 (PCT/WO JP0005428) Application: Priority Application: JP 99238835 19990825 Designated States: BR ID IN PL US (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE Publication Language: English Filing Language: English Fulltext Word Count: 20071 Fulltext Availability: Detailed Description Detailed Description

... having passed fully through the transit grooves of the dies, the material waste generated when **punching** of the large thin sheet has been completed is released by opening the chuck tools, whereupon the chuck tools advance further from the release position to a **gripping** position, where a large thin sheet registered in position on the material supply/position registering...

... direction, it is possible further to enhance the efficiency of the large thin sheet punching steps,

In the aforementioned inventions, desirably, the thin sheet punching device further comprises a small piece transporting and aligning mechanism for transporting small pieces punched out from a large thin sheet by the punch press machine and stacking same in an aligned state, The small piece transporting and aligning mechanism comprises the following elements: An output magnetic conveyor outputs small pieces which drop down after being punched out by the punch press machine, to the exterior of the punch press machine, whilst maintaining the positions thereof after punching. A stacking magnetic conveyor guides small pieces discharged from the end of the path...

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(Item 5 from file: 349)
 17/3,K/18
DIALOG(R) File 349: PCT FULLTEXT
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00545928
            **Image available**
 PUNCH GUIDE ASSEMBLY
ENSEMBLE DE GUIDAGE POUR DISPOSITIF DE POINCONNAGE
Patent Applicant/Assignee:
  MATE PRECISION TOOLING INC,
Inventor(s):
  SCHNEIDER Joseph Charles,
  BERRY David A,
Patent and Priority Information (Country, Number, Date):
                        WO 200009301 A1 20000224 (WO 0009301)
  Patent:
                        WO 99US17517 19990803 (PCT/WO US9917517)
  Application:
  Priority Application: US 98135358 19980817
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE
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ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 2773 Fulltext Availability: Detailed Description Claims

Detailed Description

... longitudinal slots 13 inside the punch guide 2.

As shown in Figures 5 and 6, punch guide 2 includes openings 15 for receiving respective side arms 8 of the retaining clip 7. These openings 15 are aligned with groove 10 when the stripper plate 6 is fully inserted into the punch guide 2. Punch guide 2 may include slight indentations 23 in the exterior wall near opening 16 which allow retaining clip 7 to be more easily grasped when removed from the punch guide. Punch guide 2 may also include an opening 16 for receiving protrusion 17 on the retaining clip. Protrusion 17, when positioned in opening 16, helps to prevent the retaining clip 7 from rotating relative to the punch guide 2 and stripper plate 6. Thus, when retaining clip 7 is inserted into punch guide 2 the edge 19 of protrusion 17 lies flat against the groove 10 as...

...pulled out of punch guide 2.

In the preferred embodiment, the inner sidewalls of the punch guide 2 also include grooves 14 extending in a circumferential direction which align with the groove 10 in the stripper plate 6 when the stripper plate 6 is completely inserted into the lower open end of the punch guide 2. In contrast to groove 10 in the stripper plate 6, grooves 14 in the punch guide 2 need not extend around the full circumference of the punch guide 2. Retaining clip 7 includes protrusions 20 at ends thereof which extend into the grooves 14 in the punch guide 2 to more securely hold the stripper plate 6 in place inside the punch guide 2. Protrusions 21 extend inwardly to engage groove 10 of the stripper plate and also extend outwardly to engage groove 14 of the punch guide 2. Although the invention has been described in considerable detail with respect to preferred...

Claim

- ... inserted into said opening for retaining said stripper plate in an operative position.
- 3 The punch guide assembly according to claim 2 wherein said stripper plate includes at least one groove in an exterior sidewall thereof such that said groove is aligned with said opening when said stripper plate is operatively inserted into said punch guide, said two side arms of said retaining clip engaging said groove when inserted into said opening.
- 4 The punch guide assembly according to claim 3 wherein said punch guide includes at least one groove in an interior wall thereof, said groove in said punch guide being aligned with said groove in said stripper plate when said stripper plate is operatively inserted into said punch guide, said side arms of said retaining clip including protrusions extending into said groove in said punch guide when said retaining clip is inserted into said opening.
  - 5 The punch guide assembly according to claim 3 wherein...

17/3,K/20 (Item 7 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00438354 \*\*Image available\*\*

MINIATURE CARD EDGE CLIP

PINCE LATERALE POUR CARTE MINIATURE

Patent Applicant/Assignee:

THOMAS & BETTS INTERNATIONAL INC,

Inventor(s):

DELPRETE Stephen D,

BARNUM David M,

SOUSA Luis A,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9828818 A1 19980702

Application:

WO 97US23422 19971222 (PCT/WO US9723422)

Priority Application: US 96771978 19961223

Designated States: CA CN JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT

SE

Publication Language: English

Fulltext Word Count: 3187

Fulltext Availability:

Detailed Description

Detailed Description

... in order to provide connectivity between the printed circuit board an external device.

The edge clip may also include an alignment feature for facilitating alignment of the edge clip with respect to the printed circuit board pad. The alignment feature is an interlocking protrusion and recess. While the protrusion may be formed on either the printed circuit board or the edge clip, in the preferred embodiment the protrusion is formed on the malleable legs of the edge clip by bending or stamping to provide bumps which will align with the corresponding holes formed in the printed circuit board.

The edge clip may also...facilitating alignment of the edge clip with respect to the printed circuit board pad.

Each alignment feature is an interlocking protrusion 50 and recess 52 which are configured to align and securely interlock. While the protrusion may be formed on either the printed circuit board or the edge clip, in the preferred embodiment the protrusion is formed on the metal edge clip legs by bending or stamping to provide bumps which will align with the corresponding holes drilled in the printed circuit board...

#### 17/3,K/25 (Item 12 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00229642

LINEAR PUNCH PRESS

PRESSE A DECOUPER LINEAIRE

Patent Applicant/Assignee:

DUNN David C,

Inventor(s):

DUNN David C,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9303893 A1 19930304

Application: WO 92US6605 19920810 (PCT/WO US9206605)

Priority Application: US 91757 19910819

Designated States: AU CA FI JP KR AT BE CH DE DK ES FR GB GR IE IT LU MC NL

SE

Publication Language: English

Fulltext Word Count: 3584

Fulltext Availability:

Detailed Description
Detailed Description
... bridge-type frame 22".

Industrial AT) TAicability

The manner of loading and unloading the linear **punch** press 4 with a workpiece, not shown . is identical to that of present 5 type **punch** presses and may be manual or automatic. The X and 6 Y positioning frame 24... ... 134 (Fig, 4), The workpiece clamp 106 and the repositioning clamp 54 are activated and **grip** the workpiece to prevent its unauthorized movement. Y axis servo drive 74 revolves the screw...

...the Y axis direction. The linear guides 70 and 70a keep the bar clamp 86 aligned ,

The repositioning clamp 54a and workpiece clamp 106a are similarly activated ana grip the workpiece. When the "on" button is activated X axis index cylinder 134 and reposition ing clamps 54 and 54a are released. The workpiece is moved to the first punch position by the Y axis servomotor drive 74 moving the workpiece in the Y axis...

...82, on the frame 50 sides, (Fige 8) prevents concave or convex bending of the punch sup port 38 during workpiece punching action. The stepper motors 114 and 114a rotate the interposer cams 116 and 116a by the cam shafts 120 and 120a into position for striking the punch rams 118. The workpiece will be punched when either cam 116 or 116a is actuated. When cam 116 has been selected the punching ram cylinder 110 drives the interposer 108 downward strikina punching ram 118 to produce the desired configuration in the workpiece...

# 17/3,K/26 (Item 13 from file: 349) DIALOG(R)File 349:PCT FULLTEXT

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00172216

MANUALLY OPERATED CLIP ATTACHMENT APPARATUS WITH MOVABLE GATE AND DIE APPAREIL MANUEL DE POSE D'AGRAFES AVEC PLAQUE ET MATRICE MOBILES

Patent Applicant/Assignee:

DELAWARE CAPITAL FORMATION INC,

ARNONE David A,

Inventor(s):

ARNONE David A,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9005670 Al 19900531

Application:

WO 88US4054 19881114 (PCT/WO US8804054)

Priority Application: WO 88US4054 19881114

Designated States: AT AU BE BR CH DE DK FR GB IT JP LU NL SE

Publication Language: English

Fulltext Word Count: 3672

Fulltext Availability:

Detailed Description

Detailed Description

... the channel 24, The slot 51 thus serves to guide a leg 34 of a clip 28 passing along the channel 24, The opposite side of the throat 50 is,, however...

...respectively, Note that the pivot shaft or rod 52 pivots about an axis which is aligned with approximately the midpoint of the channel 24. Thus, pivoting about the axis of the rod 52 will position the midpoint of the die block 54 in the path of **punch** 22 and a **clip** 28.

The gate 16 also includes a longitudinal groove associated with a clip 28 when...

